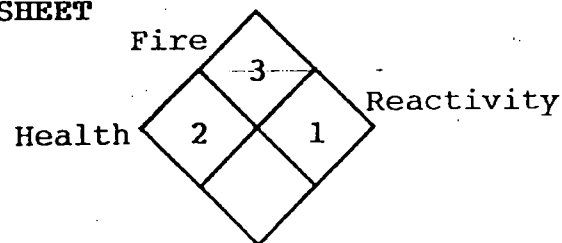


WHZCF 1.2
VI

MSDS NO# 135

MATERIAL SAFETY DATA SHEET



MSDS FOR: TURPENTINE
MANUFACTURER: WEYCO-SPFLD
MSDS DATE OF PREPARATION: 22-JUN-89
CATEGORY: Miscellaneous

MILL DISTRIBUTION

PAPER MILL

B. YODER - 28 6 COPIES

PULP MILL

T. MIKSCH - 28 6 COPIES

TECHNICAL

* SEE MASTER FILE LIST BELOW

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XX MASTER FILES (NEED COPIES OF ALL MSDS's)

TECHINICAL	W. NAY	1 COPY
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MEDICAL	S. KESEY	1 COPY
MAINTENANCE	H. SANDGATHE	3 COPIES

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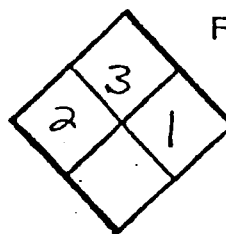


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MATERIAL SAFETY DATA SHEET

Turpentine

Health



Fire

Reactivity

Weyerhaeuser



1 - Product Identification

Pulp, Rec.

#135

MANUFACTURER NAME AND ADDRESS:

Weyerhaeuser Paper Company
Tacoma, WA 98477

MANUFACTURING FACILITY:

785 N. 42nd Street

Springfield, OR 97478

EMERGENCY PHONE: (503) 746-2511

PHONE FOR ADDITIONAL INFORMATION: (206) 924-2304

PRODUCT NAME:

Turpentine

SYNONYMS:

Sulfate of Turpentine, Spirit or
Oil of Turpentine, Turps

DATE PREPARED:

11/7/85

DATE REVISED:

6/22/89

PREPARED BY:

Corporate Safety and Health Services

MSDS NUMBER:

WC088-02

2 - Hazardous Ingredients/Identity Information

CHEMICAL OR COMMON NAME

Percent

CAS#

Hydrocarbon isomers (C₁₀H₁₆):

99

8006-64-2

Hydrocarbon Isomers Exposure Limits:

OSHA PEL-TWA 100 ppm

ACGIH TLV-TWA 100 ppm

ACGIH TLV-STEL 150 ppm

Note: The hydrocarbon isomers may include alpha and beta pinene, camphene, or other turpenes which are typical of souther pines.

APPEARANCE AND ODOR:

Straw colored liquid with pungent odor which is more pronounced with aging or exposure to air.

3 - Physical/Chemical Characteristics

BOILING POINT (F or C):	154C-170C
VAPOR PRESSURE (mm Hg):	5mm Hg at 25C, 400mm Hg at 132C
VAPOR DENSITY (AIR = 1):	4.8
SPECIFIC GRAVITY (H2O=1):	0.87 at 15C
MELTING POINT (F or C):	NAV
EVAPORATION RATE (BUTYL ACETATE = 1):	NAV
SOLUBILITY IN WATER (% by weight):	0.023% at 25C
% VOLATILE BY VOLUME @ 70F:	98

4 - Fire and Explosion Hazard Data

FLASH POINT (METHOD USED): 90F-115F (closed cup)

FLAMMABLE LIMITS:

~~LEL: 0.8% by volume~~

UEL: NAV

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam.

AUTOIGNITION TEMPERATURE (F OR C): 488F

SPECIAL FIRE FIGHTING PROCEDURES:

Water may be ineffective in quenching fire, but should be used to cool fire exposed containers and surroundings.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

When heated, the material is a moderate fire and explosion hazard. It emits acrid gases on heating and can be an OSHA Class IC or II liquid depending on the flash point of the particular commercial product.

5 - Reactivity Data

STABILITY:

(x) Unstable () Stable

Conditions To Avoid: This material is reasonably stable when stored in well ventilated, cool place in suitable container sealed to exclude air.

It can undergo auto-oxidation in air, liberating heat which can build up in a confined space.

INCOMPATIBILITY (MATERIALS TO AVOID):

Avoid oxidizing agents, oxidation catalysts, sources of ignition and heat.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

Methyl Mercaptan.

HAZARDOUS POLYMERIZATION:

() May Occur (x) Will Not Occur

Conditions To Avoid: NAP

6 - Precautions for Safe Handling and Use

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Provide adequate explosion proof ventilation to remove vapors from spill area. Personnel involved in cleanup should use protection against breathing vapors or contact with liquid. Spills should be contained, picked up with absorbent material and placed in a closed metal container for prompt disposal.

WASTE DISPOSAL METHOD:

Burning is recommended for waste disposal, using an approved incinerator for appreciable amounts in accordance with federal, state and local regulations. Do not incinerate sealed containers. Scrap turpentine can be mixed with more flammable solvents and sprayed into the incinerator.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Store in a well ventilated, cool, dry place away from sources of heat and ignition. Store away from oxidizing agents. Protect containers against physical damage.

OTHER PRECAUTIONS

Avoid inhalation of vapors or mist. Avoid contact with skin and eyes.
Do not smoke in areas of storage or use.

7 - Health Hazard Data

PRIMARY ROUTE(S) OF EXPOSURE:

- | | |
|----------------|--------------|
| () Ingestion | |
| (x) Skin | Liquid. |
| (x) Inhalation | Vapor, mist. |

ACUTE HEALTH HAZARDS - Signs and symptoms of exposure/emergency and first aid procedures:

Ingestion:

Unlikely route of industrial exposure can produce nausea, serious illness, even death (average lethal dose, for an adult is 4-6 ounces).

Get medical help immediately. Do not induce vomiting. Give edible oil or mineral oil to drink.

Eye Contact:

Liquid turpentine may cause irritation, conjunctivitis, or corneal burns. Vapors are irritating at 175 ppm.

Speed is essential. Flush with running water for 15 minutes including under eyelids. Seek medical attention.

~~Skin Contact:~~

May cause irritation, dermatitis, or chemical burns.

Remove contaminated clothing (launder before reuse). Wash with warm water and soap. Get medical help.

Skin Absorption:

Liquid can penetrate to produce systematic effects. Wash thoroughly with soap and water solution. Rinse.

Inhalation:

May cause headache, dizziness, chest pain, bronchitis, pulmonary edema, cyanosis, narcosis, rapid heart rate.

Remove from exposure. Get medical help if symptoms persist or for excessive exposure.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

No known medical conditions are aggravated.

CHRONIC HEALTH HAZARDS:

Chronic skin absorption can produce allergic sensitization. Possibility of teratogenic effects exists for pregnant women (AIHA Journal, 1976, 423-6). Note: AIHA article does not contain reference to any original research paper. Search of Toxline has not uncovered any references to tetatogenic effects.

CARCINOGENICITY LISTING:

()	NTP:	Not listed.
()	IARC Monographs	Not listed.
()	OSHA Regulated	Not listed.

8 - Control Measures

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:

Chemical cartridge respirator approved for organic vapor.

Protective Gloves:

Rubber gloves.

Eye Protection:

Full face mask or chemical goggles.

Other Protective Clothing or Equipment:

Chemical cartridge respirator or air supplied or self-contained respirator for non-routine or emergency exposures above the TLV.

Work/Hygienic Practices:

Eyewash station and safety shower should be near workplace where material is used.

VENTILATION:

Local Exhaust:

Provide local exhaust as needed so that exposure limits are met.

Mechanical (general):

Provide general ventilation in processing and storage areas as needed so that exposure limits are met.

Special: NAP

Other: NAP

9 - User's Responsibility

The information contained in this Material Safety Data Sheet is based on the experience of occupational health and safety professionals and comes from sources believed to be accurate or otherwise technically correct. It is the users' responsibility to determine if this information is suitable for their applications and to follow safety precautions as may be necessary. The user has the responsibility to make sure that this sheet is the most up-to-date issue.

10 - Additional Information

Definition of Common Terms:

ACGIH	= American Conference of Governmental Industrial Hygienists
C	= Ceiling Limit
CAS#	= Chemical Abstracts System Number
IARC	= International Agency for Research on Cancer
MSHA	= Mining Safety and Health Administration
NAP	= Not Applicable
NAV	= Not Available
NIOSH	= National Institute for Occupational Safety and Health
NTP	= National Toxicology Program
OSHA	= Occupational Safety and Health Administration
PEL	= Permissible Exposure Limit
STEL	= Short Term Exposure Limit (15 minutes)
TLV	= Threshold Limit Value
TWA	= Time-Weighted Average (8 hours)
WISHA	= Washington Industrial Safety and Health Administration